Coumarin-fluorescein pair as a new donor-acceptor set for fluorescence energy transfer study of DNA. Mitsui, Tsuneo; Nakano, Hidehiko; Yamana, Kazushige. Department of Applied Chemistry, Himeji Institute of Technology, Himeji, Japan. Tetrahedron Letters (2000), 41(15), 2605-2608. CODEN: TELEAY ISSN: 0040-4039. Journal written in English. CAN 133:105249 AN 2000:269984 CAPLUS

Abstract

A method for introduction of the 2'-coumarin labeled nucleoside as a fluorescence energy donor into DNA duplexes has been described. Efficient FRET occurs between the coumarin-fluorescein pair in DNA owing to the high quantum yield of the donor. The present donor-acceptor pair may be useful as FRET indicator of DNA structures in soln.

Indexing -- Section 33-10 (Carbohydrates)
Section cross-reference(s): 6, 22

Energy transfer
Fluorescence
(coumarin-fluorescein pair as a new donor-acceptor set for fluorescence energy transfer study of DNA)

DNA
Role: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(double-stranded; coumarin-fluorescein pair as a new donor-acceptor set for fluorescence energy transfer study of DNA)

282750-17-8P
282750-18-9P
282750-19-0P
282750-20-3P
282750-21-4P
282750-22-5P
282750-23-6P
Role: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(coumarin-fluorescein pair as a new donor-acceptor set for fluorescence energy transfer study of DNA)

779-27-1, 7-Hydroxy-3-coumarin carboxylic acid
3282-30-2, Trimethylacetyl chloride
26889-39-4
Role: RCT (Reactant); RACT (Reactant or reagent)
(coumarin-fluorescein pair as a new donor-acceptor set for fluorescence energy transfer study of DNA)

282543-34-4P